

EFFECTS OF TRANSPORTATION ON ANIMAL WELFARE IN CATTLE TO BE SLAUGHTERED IN URUGUAY

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Abstract

In Uruguay, cattle to be slaughtered are transported in trucks by road to the slaughter houses during the afternoon and part of the night. Practices of loading and unloading the trucks and controlling the animal during the transport are done by the truck drivers, using sometimes inappropriate tools. During the last two years an observational study at the truck arrivals in all the Agricultural and Livestock Ministry inspected slaughtered plants has been done. Periodically visits to the vehicles reception in each plant were done, data were collected on a questionnaire about the type of vehicles, transportation time, method and time for unloading and presence of laid animals. From 236 trucks observed, 50% of them belonged to the last five years. In relation to truck drivers, the average time on the job was 14 years. About the routes, most of them traveled by national routes in good conditions and the distances varied from 16 and 390 km (214) per load. Loading facilities were considered as acceptable in 80% of the cases. As principal tool to help animal movements shouts were used in 58%, electric devices in 40% and sticks in 2%. The means loading and unloading time varied from 19 and 5 minutes respectively. Truck conditions were acceptable in 77% of the cases. Even though these results are still preliminary, they show that in the slaughter process, the animal transport conditions are very important in the animal welfare, and it constitutes the previous step for obtaining a very good quality meat in Uruguay.

INTRODUCTION

In Uruguay as in many countries, all animals beef producers have to be slaughtered in licensed slaughterhouses. Cattle to be slaughtered are transported, mostly in trucks by different roads inside the country⁽¹⁰⁾. The transfer from the farms to the abattoirs may involve the afternoon and part of the night, exposing the animal to a range of circumstances where damage can be occurred^(7,8). Practices of loading and unloading the trucks and controlling the animal during the transport are done by the truck drivers, using sometimes inappropriate tools^(10,11). According to Grandin, fear is a very strong stressor, and both previous experience and genetic factors will interact to determine how fearful an animal may become when it is handled and transported^(4,5). As a consequence, there is an increase in the stress response in the animals, showing an increase in the body temperature, heart and respiratory rates and a associated increase of cortisol, glucose and free fatty acids in the blood stream^(1,9).

Presence of bruises increase dramatically in animals transported for more than 10 hours^(6,14,10). Damage in meat is shown in low quality and dark cuts, due to some difficulty in the pH decreasing⁽¹⁰⁾.

Several survey studies have been done in the United States and in Canada since 1991 to assess the beef cattle population for quality defects^(2,9).

A survey of cattle transport in Spain was made in order to determine which part of the process represented the most compromise for the animals' welfare^(12,13). A report from the European Commission's Scientific Committee on Animal Health and Animal Welfare concludes that the welfare of animals can be substantially affected as a result of transport. It recommends to load carefully, to keep an acceptable stock density, make the journey as short as possible and to unload carefully at the point of destination⁽¹⁵⁾.

However, there is little or no information as to the level of loss due to bruises and no recommendations about transportation in Uruguay.

An observational study at the trucks arrival in all the Uruguayan slaughter plants has been done in order to state some information that can help to avoid the presence of bruises in carcasses.

MATERIALS AND METHODS

During several months in the last two years periodically visits to Agricultural and Livestock Ministry inspected and licensed slaughter houses at the point of vehicles arriving were done in Uruguay. The trucks reception in most of the abattoirs is during the afternoon and all over the night. Once each truck has arrived, an identification number was recorded and other data were collected on a proper sheet from a personal interview to the truck driver. Model of the truck and year of made of each vehicle, status of the trailer doors, roof and floor, time of transportation, methods used to load the animals at the farm, loading facilities status, time required for this operation, details of routs driven, registration of the unloading procedure and if the driver used or not any kind of sharp device, electrical device or the use of voices (shouts) to help the unloading and the number of animals transported as well as presence or absence of laid animals was recorded.

Some data were collected directly from the truck driver's questionnaire and other were obtained from the slaughter house registers at the moment of arriving.

RESULTS AND DISCUSSION

From 236 trucks observed, 50% of them were made in the last five years. In relation to truck drivers, the average period on the job (driving trucks with cattle) was 14 years. About the routes, most of them traveled by national routes good shape and the distances varied from 16 and 390 km (214) per load. Loading facilities were considered as acceptable in 80% of the cases. As principal tool to help animal movements shouts were used in 58%, electric devices in 40% and sticks in 2%. This means that loading and unloading time varied from 19 and 5 minutes respectively. Truck conditions were acceptable in 77%of the cases. Even though these results are still preliminary, they show that in the slaughter process, the animal transport conditions are very important in the animal welfare and it constitutes the previous step for obtaining a very good meat quality in Uruguay.

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